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EXAMINER

HO, THOMAS Y

ART UNIT

PAPER NUMBER

3677

DATE MAILED: 03/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/804,287

Applicant(s)

KOLODY ET AL.

Examiner

Thomas Y Ho

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 17 is objected to because of the following informalities: The phrase “flat and bottom” should be corrected to --flat top and bottom--. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 6 is rejected under 35 U.S.C. 102(b) as being anticipated by Cooper  
USPN4145612.

As to claim 6, Cooper discloses:

- A base member.
- A column connected with the base member 11.
- A rectangular radiolucent patient support member 12 carried on the column.
- The patient support member defining substantially planar top and bottom surfaces.
- A low radiographic shadow accessory connection interface defined by a surface along at least one edge of the patient support member for selectively connecting an associated accessory to the patient support member.
- The surface being without planar portions oriented in a substantially perpendicular relation to said planar top surface of the patient support member so that first portions of an associated x-ray signal passing through the connection interface along a path

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substantially perpendicular to the planar top surface are attenuated substantially the same as second portions of the x-ray signal passing through the patient support member.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-5, 7-14, 17-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cooper USPN4145612 in view of Velazquez USPN4484571.

As to claim 1, Cooper discloses:

- A radiolucent patient support table 12 including substantially planar top and bottom surfaces held apart in an opposed relationship.
- A medical appliance support interface for selectively connecting an associated medical appliance to the table. This limitation discloses no structure and furthermore, any surface of any shape can support a medical appliance.
- A first connection area defined on said top surface of the surgical table.
- The first connection area being shaped to provide a first supporting force against an associated medical appliance in a first direction substantially parallel to the top and bottom surfaces, and a second supporting force against the associated medical appliance in a second direction substantially perpendicular to the top and bottom surfaces.

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- A second connection area defined on said table and shaped to provide a third supporting force against the associated medical appliance in a third direction substantially parallel to the top and bottom surfaces, and a fourth supporting force against the associated medical appliance in a fourth direction substantially perpendicular to the top and bottom surfaces. The beveled edge of the table disclosed by Cooper is the second connection area that is shaped to provide forces.

Cooper fails to disclose or suggest the interface comprising:

- A non-planar first connection area.

Velazquez discloses: a non-planar first connection area 39 on the top surface of a surgical table 11 including at least one curved recess or groove defined between a pair of opposed space apart concave wall surfaces that converge at a bight of the at least one recess to provide supporting forces for a medical appliance (fig.6, fig.7); the curved recess defining a groove having a first radius  $r$ ; the groove extending the length of the table top; the curved recess including a planar intermediate surface extending between the concave wall surfaces, with the planar intermediate surface substantially parallel with the top surface of the table; the curved recess adjacent a curved lip 40; the curved lip defining a ridge having substantially a first radius  $r$ ; the rounded/curved lip area 40 spaced from the top surface of the table 11 defining a crest; a third connection area (downward edge of 39) including a downwardly directed curved ridge (bottom of 40) extending from the bottom surface of the patient support member in a direction opposite from said curved lip surface of said first connection area; the ridge extending the length of the table top; to help restrain a patient from falling off of the table and to minimize body motion (col.1, ln.10-20). It would have been obvious to one of ordinary skill in the art at the

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time the invention was made to modify the surgical table disclosed by Cooper to have a non-planar first connection area, as taught by Velazquez, to help restrain a patient.

As to claim 2, Cooper fails to disclose or suggest:

- Said first connection area includes at least one recess defined between a pair of wall surfaces that converge at a bight of the at least one recess.

The combination rejection of Cooper in view of Velazquez discloses the limitations of claim 2 as detailed in claim 1 above.

As to claim 3, Cooper discloses:

- Said second connection area includes a substantially planar surface held at an oblique angle relative to said substantially planar top and bottom surfaces. The second connection area is the beveled edge of the table 12.

As to claim 4, Cooper discloses:

- Said second connection area is a substantially planar surface.

Cooper fails to disclose or suggest:

- A rounded lip area 40 formed between said at least one recess and said second connection area.
- The rounded lip area defining a crest located between said bight and a plane defined by the top surface of the patient support table.

The combination rejection of Cooper in view of Velazquez discloses the limitations of claim 4 as detailed in claim 1 above.

As to claim 5, Cooper discloses:

- The top surface of the table 12 defines a plane.

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Cooper fails to disclose or suggest:

- Said rounded lip area is spaced apart from the top surface by a predetermined distance.

The combination rejection of Cooper in view of Velazquez discloses the limitations of claim 5 as detailed in claim 1 above.

As to claim 7, Cooper discloses:

- Said surface of the low shadow connection interface includes a first connection area adjacent the planar top surface of the patient support member and a second connection area extending between the first connection area and the bottom surface of the patient support member.
- The second connection area including a planar locating surface disposed in a non-perpendicular relation with said planar top surface.

Cooper fails to disclose or suggest:

- The first connection area including a curved lip surface.

The combination rejection of Cooper in view of Velazquez discloses the limitations of claim 7 as detailed in claim 1 above.

As to claim 8, Cooper discloses:

- The patient support member 12 has a planar top surface.

Cooper fails to disclose or suggest:

- The first connection area includes a curved recess surface in the top surface of the patient support member adjacent said curved lip surface.

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The combination rejection of Cooper in view of Velazquez discloses the limitations of claim 8 as detailed in claim 1 above.

As to claim 9, Cooper discloses:

- A planar top surface.

Cooper fails to disclose or suggest:

- The curved recess formed in the top surface is defined by a pair of opposed spaced apart concave walls surfaces formed in the top surface of the patient support member adjacent said curved lip surface.

The combination rejection of Cooper in view of Velazquez discloses the limitations of claim 9 as detailed in claim 1 above.

As to claim 10, Cooper discloses:

- A planar top surface.

Cooper fails to disclose or suggest:

- The curved recess surface formed in the planar top surface defines a groove having a first radius  $r$ .
- The curved lip surface defines a ridge having substantially said first radius  $r$ .

The combination rejection of Cooper in view of Velazquez discloses the limitations of claim 10 as detailed in claim 1 above.

As to claim 11, Cooper discloses:

- A planar top surface.



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Cooper fails to disclose or suggest:

- The curved recess surface includes a planar intermediate surface extending between said spaced apart concave wall surfaces.
- The planar intermediate surface being substantially parallel with the top surface of the patient support member.

The combination rejection of Cooper in view of Velazquez discloses the limitations of claim 11 as detailed in claim 1 above.

As to claim 12, Cooper discloses:

- The planar locating surface (beveled edge of table 12) extends at an angle of about 50 degrees relative to the top and bottom surfaces of the patient support member.

As to claim 13, Cooper discloses:

- The top surface of the patient support member 12 defines a first plane.
- The first connection area is disposed entirely on a side of said first plane containing said patient support member.

Cooper fails to disclose or suggest:

- The first connection area is a curved lip surface.

The combination rejection of Cooper in view of Velazquez discloses the limitations of claim 13 as detailed in claim 1 above.

As to claim 14, Cooper discloses:

- A third connection area between said second connection and said bottom surface of the patient support member 12.

Cooper fails to disclose or suggest:

- A third connection area including a downwardly directed curved ridge extending from the bottom surface of the patient support member in a direction opposite from said curved lip surface of said first connection area.

The combination rejection of Cooper in view of Velazquez discloses the limitations of claim 14 as detailed in claim 1 above.

As to claim 17, Cooper discloses:

- A radiolucent patient support table 12 including a flat top and bottom surfaces held apart in an opposed relationship.
- A medical support interface for selectively connecting an associated medical appliance to the table.
- A first connection area defined on said top surface of the surgical table.
- The first connection area being shaped to provide a first supporting force against an associated medical appliance in a first direction substantially parallel to the top and bottom surfaces, and a second supporting force against the associated medical appliance in a second direction substantially perpendicular to the top and bottom surfaces.
- A second connection area defined on said table and shaped to provide a third supporting force against the associated medical appliance in a third direction substantially parallel to the top and bottom surfaces, and a fourth supporting force against the associated medical appliance in a fourth direction substantially perpendicular to the top and bottom surfaces.

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Cooper fails to disclose or suggest:

- A curved first connection area.

The combination rejection of Cooper in view of Velazquez discloses the limitations of claim 17 as detailed in claim 1 above.

As to claim 18, Cooper fails to disclose or suggest:

- Said first connection area includes at least one recess defined between a pair of wall surfaces that converge at a bight of the at least one recess.

The combination rejection of Cooper in view of Velazquez discloses the limitations of claim 18 as detailed in claim 1 above.

As to claim 19, Cooper discloses:

- Said second connection area includes a substantially planar surface held at an oblique angle relative to said substantially planar top and bottom surfaces. The second connection area is the beveled edge of the table 12.

As to claim 20, Cooper discloses:

- Said second connection area is a substantially planar surface.

Cooper fails to disclose or suggest:

- A rounded lip area 40 formed between said at least one recess and said second connection area.
- The rounded lip area defining a crest located between said bight and a plane defined by the top surface of the patient support table.

The combination rejection of Cooper in view of Velazquez discloses the limitations of claim 20 as detailed in claim 1 above.

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As to claim 21, Cooper discloses:

- A table top 12 having, on opposite sides of the table top, a substantially flat upper surface and a substantially flat lower surface.
- A substantially flat side surface extending between said upper edge of the table top and said lower edge of the table top.

Cooper fails to disclose or suggest:

- A groove defined by said upper surface.
- The groove being spaced apart from an upper edge of the table top defined by said upper surface.
- A ridge defined by said lower surface extending between said upper edge of the table top and said lower edge of the table top.

The combination rejection of Cooper in view of Velazquez discloses the limitations of claim 21 as detailed in claim 1 above.

As to claim 22, Cooper discloses:

- Said substantially flat side surface defines a beveled edge of said table top 12.

As to claim 23, Cooper discloses:

- The table top 12 includes a foam core (col.1, ln.35-38) surrounded by an outer layer of carbon fibers.

As to claim 24, Cooper discloses:

- Said substantially flat side surface is held at an oblique angle relative to at least one of said upper surface and said lower surface of said table top.

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As to claim 25, Cooper fails to disclose or suggest:

- Said groove is an elongate groove extending substantially the length of said table top.
- Said ridge is an elongate ridge extending substantially the length of said table top.

The combination rejection of Cooper in view of Velazquez discloses the limitations of claim 25 as detailed in claim 1 above.

As to claim 26, Cooper fails to disclose or suggest:

- The elongate groove is a recess defined between a pair of concave wall surfaces that converge at a bight area formed by the upper surface of the table top.

The combination rejection of Cooper in view of Velazquez discloses the limitations of claim 26 as detailed in claim 1 above.

As to claim 27, Cooper fails to disclose or suggest:

- The bight area includes a flat surface between said pair of concave wall surfaces.

The combination rejection of Cooper in view of Velazquez discloses the limitations of claim 27 as detailed in claim 1 above.

As to claim 28, Cooper fails to disclose or suggest:

- Said groove and said ridge are defined by exclusively curved surfaces.

The combination rejection of Cooper in view of Velazquez discloses the limitations of claim 28 as detailed in claim 1 above.

As to claim 29, Cooper discloses:

- Said flat upper surface of the table top 12 defines a plane.

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Cooper fails to disclose or suggest:

- Said groove formed by the upper surface is a recess defined between a pair of concave wall surfaces that converge at a bight area formed by the upper surface.
- The bight area being spaced apart from said plane defined by the upper surface.
- Said upper edge of the table top terminates at a location between said bight area and said plane.

The combination rejection of Cooper in view of Velazquez discloses the limitations of claim 29 as detailed in claim 1 above.

6. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cooper USPN4145612 in view of Velazquez USPN4484571, and further in view of Lussi USPN5754997.

As to claim 15, Cooper in view of Velazquez discloses:

- A radiolucent patient support member 12.

Cooper in view of Velazquez fails to disclose or suggest:

- The patient support member includes a plurality of selectively intermateable support member portions including a body and leg support section connected with said column, a headrest section pivotally attached with the body and leg support sections, and a cardio-vascular extender member selectively attachable to the body and leg support section.

Lussi discloses a support member having a plurality of intermateable support members including a body and leg section, a headrest section, and a cardio-vascular extender member, to facilitate orientation of a patient for different surgical operations (col.2, ln.10-15). It would have

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been obvious to one of ordinary skill in the art at the time the invention was made to modify the support member disclosed by Cooper to have intermateable support portions, as taught by Lussi, to facilitate orientation of a patient for different surgical operations.

7. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cooper USPN4145612 in view of Velazquez USPN4484571, and further in view of Pegrum USPN3627250.

As to claim 16, Cooper in view of Velazquez fails to disclose or suggest:

- A vertical column member suspended from overhead by a ceiling of an associated surgical room.
- A generally horizontally oriented support bar for pivotally connecting the patient support member with the vertical column member.
- The support bar being vertically moveable relative to the column member to enable positioning of the patient support member relative to a floor of the associated surgical room.

Pegrum discloses a vertical column member 1 and a support bar 4 to position a patient (col.1, ln.1-10). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the support disclosed by Cooper to have a support bar and column member, as taught by Pegrum, to position a patient.

#### ***Response to Arguments***

8. Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.


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*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas Y. Ho whose email address is thomas.ho@uspto.gov and telephone number is (703) 305-4556. The examiner can normally be reached on M-F 9:30AM-6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J.J. Swann can be reached on (703) 306-4115. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9326.

TYH  
March 20, 2003

  
J. J. SWANN  
SUPERVISORY PATENT EXAMINER  
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